# TUBERCULOSIS

## PROGRAM PROFILE

| | |
|---|---|
| **Program Goal** | To eradicate bovine tuberculosis from the United States. |
| **Enabling Legislation** | 21 USC 114; Animal Industry Act of 1884. |
| **Economic Significance** | A 1972 study estimated that if this program were discontinued, the annual losses after 40 years would increase to $238 million. The benefit/cost ratio is estimated at 3.64 to 1. A more comprehensive computer model developed by Canada in 1979 indicates that annual U.S. losses with no program would be substantially greater, estimated at over $1 billion. |
| **Principal Approach and Methods Used to Achieve Goals** | Cooperative Federal-State eradication program. Investigation, epidemiology, testing, depopulation, and indemnity are the program methods. |
| **History** | The program began in 1917, when the rate of tuberculosis in the United States was 5 percent of cattle tested. The U.S. achieved modified accredited-status in 1940 when the reactor rate fell below 0.5 percent of the animals tested. In March 1987, import regulations were amended to require the branding of all steers imported into the United States from Mexico. A regulation was implemented in November 1987, making owners of bison eligible for indemnity for bison destroyed due to tuberculosis infection. In December 1993, import regulations were amended to require that all steers imported into the U.S. from Mexico be identified by numbered eartags issued by the Mexican government. In May 1994, the Bovine Tuberculosis Eradication Uniform Methods and Rules (UM&R) were amended to include Cervidae species. These rules provide for accredited standards for cervid herds, official tuberculosis tests, and requirements for interstate movement. |
| **State and Local Cooperation** | No matching fund requirements, but most States have spent large sums on the disease. States provide personnel to trace and test animals suspected of having TB at slaughter, and some States provide indemnity to owners. Public health services require TB tests of herds that sell milk. |

**Involvement of Other Agencies** FSIS, ARS

## RESOURCE DATA

| | Obligations | | | |
|---|---|---|---|---|
| | Direct | Reimbursement | User Fees | Staff-Years |
| FY 1996 | 4,433,588 | -- | -- | 48 |
| FY 1997 | 4,413,532 | -- | -- | 38 |
| FY 1998 | 4,765,116 | -- | -- | 35 |
| FY 1999 (est.) | 4,920,000 | -- | -- | 35 |
| FY 2000 (est.) | 4,920,000 | -- | -- | 32 |

| | APHIS | Coop | Total | CCC | Contingency Fund |
|---|---|---|---|---|---|
| Cum. | $287,621,896 | $351,897,066 | $639,518,962 | -- | $3,667,695 |

## RECENT ACCOMPLISHMENTS

**Newly Infected Herds**

In FY 1998, there was only one newly infected cattle herd and three newly infected cervid herds found in the United States. The newly infected cattle herd was a small beef herd in Michigan, believed to have been infected by nearby wildlife. Michigan continues to test livestock in the endemic areas and is taking positive steps to address the situation in the affected wildlife population. Of the three newly infected cervid herds, one was primarily a white tailed deer herd in Michigan, another was a captive elk herd in Wisconsin, and the last was a captive elk herd in Kansas. The herd in Wisconsin was depopulated and the herd in Kansas is undergoing quarantine release testing.

**Status of Tuberculosis Program**

At the end of FY 1998, 45 States and the U.S. Virgin Islands were in accredited-free status. During the year, Hawaii regained accredited-free status which had been suspended in 1997 due to the isolation of m. bovis on the Island of Molokai. Hawaii is currently conducting a wildlife survey on the Island to identify the possible wildlife infection reservoir. Michigan's accredited-free status was suspended in FY 1998 due to the isolation of *M. bovis* from an Angus cow. Pennsylvania, California, and Puerto Rico will be eligible for accredited-free status in FY 1999.

**Large Dairy Herds**

One of the program's most challenging barriers is tuberculosis in large dairy herds of the El Paso milkshed area. Presently, two dairy herds are under quarantine for bovine tuberculosis. Both are in the El Paso milkshed area of Texas. Both herds are in the process of quarantine release testing.

**Mexican Origin Cattle**

APHIS continued to support Mexico's bovine tuberculosis eradication program in FY 1998. This was done by providing technical training for Mexican accredited veterinarians, government officials, and program supervisors. Nearly 100 veterinarians attended three training seminars sponsored by Mexico's National Commission for the Eradication of Tuberculosis and Brucellosis (SAGAR) and partially instructed by APHIS. The training seminars were held in Mexico. Topics included tuberculosis epidemiology, diagnostic procedures and methods, infected herd management, surveillance, and epidemiologic case development.

Reviews were conducted in several Mexican States (including Baja California Norte, Baja California Sur, Veracruz, Quintana Roo, Campeche, Nayarit, and the La Laguna region of Coahuila and Durango) by representatives from the Bi-National Tuberculosis and Brucellosis Committee. These reviews were conducted to determine the progress of the states in implementing Mexico's TB eradication program.

**Tuberculosis in Cervidae**

From 1991 to the present, we have confirmed tuberculosis in 35 cervid herds. Of the 35 herds, 23 were depopulated, 10 were released from quarantine, and 2 remain under quarantine. The incidence of tuberculosis in captive cervid herds is on the decline. Investigations of these infected herds have shown that exotic animal collection are the major sources.